

REMARKS/ARGUMENTS

Reconsideration and withdrawal of the rejections of the application are respectfully requested in view of the amendments and remarks herewith, which place the application into condition for allowance. The present amendment is being made to facilitate prosecution of the application.

I. STATUS OF THE CLAIMS AND FORMAL MATTERS

Claims 1-21 are pending. Claims 1, 9 and 15 are independent and hereby amended. No new matter has been added. It is submitted that these claims, as originally presented, were in full compliance with the requirements of 35 U.S.C. §112. Changes to claims are not made for the purpose of patentability within the meaning of 35 U.S.C. §101, §102, §103, or §112. Rather, these changes are made simply for clarification and to round out the scope of protection to which Applicant is entitled.

II. SUPPORT FOR AMENDMENT IN SPECIFICATION

Support for this amendment is provided throughout the Specification as originally filed and specifically at paragraphs [0032] and [0040] of Applicant's corresponding published application. By way of example and not limitation:

[0032] The wireless communication apparatus 1 performs identification processing of the communication-targeted wireless terminal apparatus 400 located within the communication area created by each of the directional patterns of the antennas 501, 502, storage processing of a correspondence relationship between the communication-targeted wireless terminal apparatus 400 and each of the antennas 501 and 502 or the like, and **at the time of making the wireless communication, and performs selection**

processing of either one of the antennas 501, 502 which corresponds to the pertinent wireless terminal apparatus 400 based on the reading processing of the information stored beforehand.

[0040] In the first embodiment, when wireless communication processing is arbitrarily made with the communication-targeted wireless terminal apparatus 400, the pertinent wireless communication apparatus 1 is provided with two antennas, that is, the antenna 501 having a directional pattern in a front side direction of the main body of the wireless communication apparatus, and the antenna 502 having directional pattern in a back side direction of the main body of the wireless communication apparatus, and the communication-targeted wireless terminal apparatus 400 capable of making wireless communication within the communication area created by each of the directional patterns is prepared beforehand. **In the state where such two antennas 501, 502 having different directivities from each other are provided, the wireless communication apparatus 1 transmits a reference signal SR to the communication-targeted wireless terminal apparatuses 400 located within these directivities through these antennas 501, 502 alternately.** At this time, since the reference signal SR is alternately transmitted through the antennas 501, 502, the range where the communication-targeted wireless terminal apparatus 400 can recognize the reference signal SR is enlarged. In this manner, the communication-capable distance between the wireless communication apparatus 1 and the wireless terminal apparatus 400 can be elongated. Further, as shown in FIG. 1, two communication-targeted wireless terminal apparatuses 400 are assumed so that one of the wireless terminal apparatuses 400 is located toward the directional pattern of the antenna 501 and the other of the wireless terminal apparatuses 400 is located toward the directional pattern of the antenna 502.

III. RESPONSE TO REJECTIONS UNDER 35 U.S.C. §112

Claims 1, 9 and 15 are hereby amended, thereby obviating the rejection under 35

U.S.C. §112.

As claims 1, 9 and 15 have been amended, Applicant respectfully requests the rejection to claims 2-8, 10-14 and 16-21, which depend on claims 1, 9 and 15, respectively, be withdrawn.

IV. RESPONSE TO REJECTIONS UNDER 35 U.S.C. §103(a)

Claims 1-21 were rejected under 35 U.S.C. §103 as allegedly unpatentable over Japanese Patent No. JP 2000-232458 to Yokogawa et al. (hereinafter, merely “Yokogawa”) in view of U.S. Patent Application Publication No. 2001/0015967 to Sugiura (hereinafter, merely “Sugiura”) and Japanese Patent No. JP 2000-232456 to Yokogawa et al. (hereinafter, merely “Yokogawa (JP 2000-232456)”).

Claim 1 recites, *inter alia*:

...prior to determination of whether video data is to be transmitted, transmission of a reference signal from a first antenna body to the wireless terminal apparatus,

subsequently and prior to determination of whether video data is to be transmitted, transmission of a reference signal from a second antenna body to the wireless terminal apparatus, wherein a range of detection of the reference signal by the wireless terminal apparatus is enlarged by the transmission of the reference signal alternately through each of the plurality of antenna bodies...
(Emphasis added)

As understood by Applicant, Yokogawa (JP 2000-232456) relates to making communication efficient in a radio LAN system where a plurality of antennas having directivity are switched by a key station and data communication is executed with child stations.

Applicant submits that neither Yokogawa nor Sugiura nor Yokogawa (JP 2000-232456), taken alone or in combination, would disclose or render predictable the above-identified features of claim 1. Specifically, none of the references used as a basis for rejection discloses or renders predictable **“prior to determination of whether video data is to be transmitted, transmission of a reference signal from a first antenna body to the wireless terminal apparatus, subsequently and prior to determination of whether video data is to be transmitted, transmission of a reference signal from a second antenna body to the wireless terminal apparatus, wherein a range of detection of the reference signal by the wireless terminal apparatus is enlarged by the transmission of the reference signal alternately through each of the plurality of antenna bodies”**, as recited in claim 1.

The Office Action (see pages 6-7) concedes that Yokogawa fails to clearly mention “prior to determination of whether video data is to be transmitted, transmission of a reference signal from a first antenna body to the wireless terminal apparatus, subsequently and prior to determination of whether video data is to be transmitted, transmission of a reference signal from a second antenna body to the wireless terminal apparatus,” but asserts that Yokogawa (JP 2000-232456) discloses above mentioned features, and refers to Yokogawa (JP 2000-232456), paragraph [0011]. Applicant notes that to Yokogawa (JP 2000-232456) is in Japanese, and thus relies on a machine translation of the reference provided by the Office; citations are from this machine translation. Yokogawa (JP 2000-232456), paragraphs [0011], [0053]-[0058] and Drawings 8-9 are reproduced as follow:

[0011] [Means for Solving the Problem]In order to attain the above-mentioned purpose, in a wireless data communication system concerning this invention. It has a key station connected to a backbone network, and two or more child stations connected to a

data processing device, While transmitting a reporting signal for a key station changing two or more antennas which had directivity one by one, and checking existence of a child station one by one, **When a child station which received a reporting signal transmits a reply signal to a key station and a key station transmits an enabling signal which directs data communications to the child station concerned using an antenna which received a reply signal from a child station, A key station faces carrying out radio of a data signal and the reception confirmation signal between the child stations concerned using the antenna concerned, and data communications between a key station and a child station are performed** as follows.

[0053] ... An example of the procedure of the communications processing performed between the key station 1 and the child station 2 in such data communications is notionally shown in **drawing 8**.

[0054] By performing the receiving waiting machine of the data signal transmitted from transmitting processing and the child station 2 of the enabling signal which was made to change the sector antennas T0-T11 which CPU30 uses for communication as mentioned above in this example, and was described above, The reply signal which requires data communications from a child station (in this example.) It is performing transmitting the enabling signal with which data communications are permitted using the antenna which received the requirement signal, or making the antenna used for communication after transmitting the enabling signal concerned changed to the antenna which transmitted the enabling signal concerned to predetermined data receiving timing. Here, after CPU30 transmits an enabling signal in this example, it is the predetermined data receiving timing which the timing which makes the data signal slots DS1-DS3 and the antenna used for communication in DL4 changed to the sector antennas T0-T11 which transmitted the enabling signal concerned described above.

[0055] **If the data addressed to the child station 2 concerned is received via the backbone network 3 in the key station 1 when performing data communications, for example between the child stations 2, or when the requirement signal which notifies the existence from the child station 2 is received, Transmitting to the child station 2 by making the data concerned into a data signal is performed.** Namely, while CPU30 transmits the enabling signal which makes the antenna used for communication changed

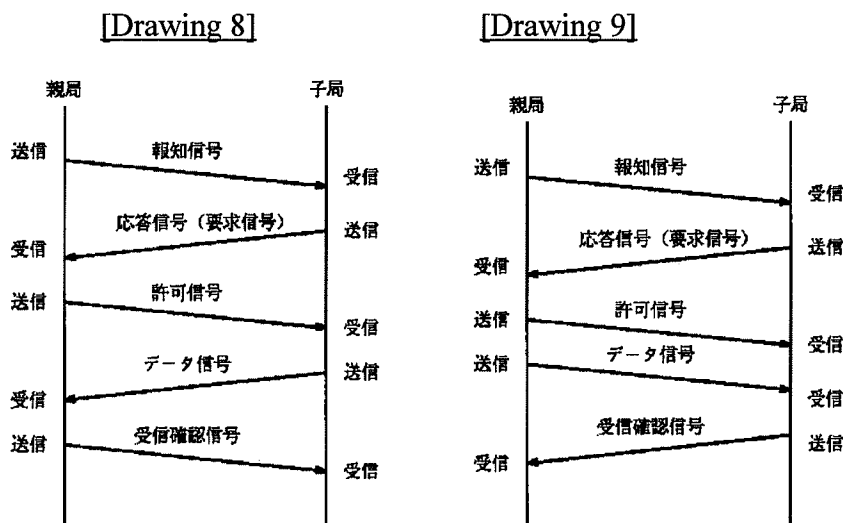
from the child station 2 to the sector antennas T0-T11 which received the requirement signal, and requires data communications in the control section 15 of the key station 1 via one of the enabling signal slots G1-G4, It performs transmitting the data signal addressed to the child station 2 concerned via data signal slot [of the number corresponding to the enabling signal slot number which transmitted the enabling signal concerned] DS1-DS3, and DL4.

[0056] ... An example of the procedure of the communications processing performed between the key station 1 and the child station 2 in such data communications is notionally shown in **drawing 9**.

[0057] By performing the receiving waiting machine of the reception confirmation signal transmitted from transmitting processing and the child station 2 of the enabling signal which was made to change the sector antennas T0-T11 which CPU30 uses for communication as mentioned above in this example, and was described above, A data signal is transmitted while transmitting the enabling signal which requires data communications using the antenna which received the reply signal (this example requirement signal) from a child station, After transmitting the data signal concerned, it is performing making the antenna used for communication changed to the antenna which transmitted the data signal concerned to predetermined check timing. Here, after CPU30 transmits a data signal in this example, it is the predetermined check timing which the timing which makes the antenna used for communication in the reception confirmation signal slot A1 - A4 changed to the sector antennas T0-T11 which transmitted the data signal concerned described above.

[0058] As described above, in the communication frame of this example, Two or more data signal slot DS1-DS3 and DL4 from which data length differs is provided, and in the key station 1 of this example. CPU30 performs changing data signal slot [which detect the length of the data of a transmission object and use it for transmission of the data concerned according to the detected length] DS1-DS3, and DL4. Namely, the length of the data received, for example via the backbone network 3 in CPU30 of this example. (For example, the length of an Ethernet frame) According to the length of the data which requires the transmission from the child station 2 concerned notified by the requirement signal etc., come out from the child station 2 practically, and in the possible range.

While assigning the data signal slots DS1-DS3 which have data length short about comparatively short data and performing data communications, data signal slot DL4 which has data length long about comparatively long data is assigned, and data communications are performed.



Applicant submits that in Yokogawa (JP 2000-232456), as shown in Drawing 8 and Drawing 9 and as best can be understood using the machine translation, the communication processes between the key station and the child station include the following steps: 1) a reporting signal is transmitted from the key station to the child station; 2) a reply signal (a requirement signal) is transmitted from the child station to the key station; 3) an enabling signal is transmitted from the key station to the child station; and 4) data transmission between the key station and the child station begins. Thus, Yokogawa (JP 2000-232456) discloses nothing about **first transmitting a reference signal from a first antenna body to the wireless terminal apparatus, and then subsequently transmitting a reference signal from a second antenna body to the wireless terminal apparatus prior to determination of whether video data is to be transmitted.** Therefore, Yokogawa (JP 2000-232456) fails to disclose or render predictable “**prior to**

determination of whether video data is to be transmitted, transmission of a reference signal from a first antenna body to the wireless terminal apparatus, subsequently and prior to determination of whether video data is to be transmitted, transmission of a reference signal from a second antenna body to the wireless terminal apparatus, wherein a range of detection of the reference signal by the wireless terminal apparatus is enlarged by the transmission of the reference signal alternately through each of the plurality of antenna bodies”, as recited in claim 1.

Furthermore, this deficiency of Yokogawa (JP 2000-232456) is not cured by the supplemental teaching of Yokogawa or Sugiura.

Therefore, Applicant submits that independent claim 1 is patentable and respectfully request reconsideration and withdrawal of the rejection.

For reasons similar to, or somewhat similar to, those described above with regard to independent claim 1, independent claims 9 and 15 are also patentable, and Applicant thus respectfully requests reconsideration of the rejections thereto.

V. DEPENDENT CLAIMS

The other claims in this application are each dependent from one of the independent claims discussed above and are therefore believed patentable for at least the same reasons. Applicant thereby respectfully requests reconsideration and withdrawal of rejections thereto. Because each dependent claim is also deemed to define an additional aspect of the invention, however, the individual reconsideration of the patentability of each on its own merits is respectfully requested.

CONCLUSION

Because Applicant maintains that all claims are allowable for at least the reasons presented hereinabove, in the interests of brevity, this response does not comment on each and every comment made by the Examiner in the Office Action. This should not be taken as acquiescence of the substance of those comments, and Applicant reserves the right to address such comments.


In the event the Examiner disagrees with any of statements appearing above with respect to the disclosure in the cited reference, or references, it is respectfully requested that the Examiner specifically indicate those portions of the reference, or references, providing the basis for a contrary view.

Please charge any additional fees that may be needed, and credit any overpayment, to our Deposit Account No. 50-0320.

In view of the foregoing amendments and remarks, it is believed that all of the claims in this application are patentable and Applicant respectfully requests early passage to issue of the present application.

Respectfully submitted,

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